

**A. AMENDMENTS TO CLAIMS**

Please amend the claims as indicated hereinafter.

- 1-6. (CANCELED)
7. (CURRENTLY AMENDED) A machine-implemented method for estimating how a particular user would rate a particular item, from a plurality of items, that the particular user has not yet rated, the method comprising the machine-implemented steps of:  
identifying one or more items from the plurality of items that have ratings similar to ratings of the particular item;  
identifying one or more other users that have given ratings to the one or more items that are substantially similar to ratings given by the particular user to the one or more items; and  
generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users.
8. (ORIGINAL) The machine implemented method as recited in Claim 7, wherein the step of identifying, from the plurality of items, one or more other items that have ratings similar to the particular item is performed off-line in advance of the other steps.
9. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying one or more items from a plurality of items that have ratings similar to the particular item includes calculating a statistical correlation between the particular item and the other items from the plurality of items.
10. (ORIGINAL) The machine-implemented method as recited in Claim 7, further comprising the machine-implemented step of determining whether the particular item and each of the one or more items have at least a specified number of co-ratings.

11. (ORIGINAL) The machine-implemented method as recited in Claim 7, further comprising the machine-implemented step of determining whether the particular item and one of the one or more items have at least a specified fraction of co-ratings between the particular item and the one of the one or more items divided by the number of ratings of either the particular item or the one of the one or more items.
12. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein the step of identifying one or more items from the plurality of items that have ratings similar to the particular item includes identifying whether the particular item and the one or more items have a number of co-raters greater than a specified fraction of a statistically expected number, given the number of ratings of each item counted separately.
13. (CANCELED)
14. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein the step of identifying one or more items from the plurality of items that have ratings similar to the particular item includes consideration of one or more of a statistical correlation between the particular item and the one or more items, whether the particular item and the one or more items have at least a specified number of co-ratings, whether the particular item and the one or more items have at least a specified fraction of co-ratings, and whether the particular item and the one or more items have at least a specified fraction of the statistically expected number of co-ratings.
15. (ORIGINAL) The machine-implemented method as recited in Claim 7, further comprising the machine-implemented step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having at least a specified minimum number of ratings.
16. (ORIGINAL) The machine-implemented method as recited in Claim 7, further comprising

the machine-implemented step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having less than a specified maximum number of ratings.

17. (ORIGINAL) The machine-implemented method as recited in Claim 7, further comprising the machine-implemented step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having an average rating within a specified range.
18. (ORIGINAL) The machine-implemented method as recited in Claim 7, further comprising the machine-implemented step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having a rating distribution within a specified tolerance of a Normal distribution.
19. (ORIGINAL) The machine-implemented method as recited in Claim 7, further comprising the machine-implemented step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having a rating standard deviation within a specified range.
20. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying one or more other users that have given ratings to the one or more items that are substantially similar to ratings given by the particular user to the one or more items includes consideration of one or more of whether the one or more other users have at least a specified minimum number of co-ratings, whether the one or more other users have less than a specified maximum number of ratings, whether the one or more other users have an average rating within a specified range, whether the one or more other users have a rating distribution within a specified tolerance of a Normal distribution, and whether the one or more other users have a rating standard deviation within a specified range.

21. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying the one or more other users includes choosing the one or more other users for whom a statistical correlation with the particular user of co-ratings of the one or more items is greater than a specified threshold.
22. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying the one or more other users includes choosing the one or more other users for whom a vector cosine distance of co-ratings of the one or more items is smaller than a specified threshold.
23. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying the one or more other users includes choosing the one or more other users who have co-rated a subset of the one or more items exactly the same as the particular user.
24. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying the one or more other users includes choosing the one or more other users who have rated co-rated a subset of the one or more items within a specified threshold of the ratings by the particular user.
25. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying the one or more other users includes consideration of one or more of whether the one or more users have a correlation of co-ratings of the one or more items greater than a specified threshold, whether the one or more users have a vector cosine distance of co-ratings of the one or more items smaller than a specified threshold, whether the one or more users have co-rated a subset of the one or more items exactly the same, and whether the one or more users having co-rated a subset of the one or more items within a specified threshold of the ratings by the particular user.
26. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying

the one or more other users includes choosing a specified number of other users most similar to the particular user.

27. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying the one or more other users includes choosing other users whose similarity to the particular user is better than a specified threshold.
28. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein identifying the one or more other users includes choosing up to a specified number of other users most similar to the particular user, where all the chosen other users have similarity better than a specified threshold.
29. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein generating an estimation of how the user would rate the particular item based upon ratings for the particular item given by the one or more other users includes determining an average rating of the particular item by the one or more other users.
30. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users includes determining an average rating of the particular item by the one or more other users.
31. (ORIGINAL) The machine-implemented method as recited in Claim 7, further comprising the machine-implemented steps of:  
generating, for each of the one or more users, a separate estimation of how the particular user would rate the particular item based upon the rating for the particular item given by each of the one or more other users, and  
calculating a confidence metric based upon disparities between the separate estimations.

32. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein the plurality of items is a plurality of movies, the one or more items is one or more movies and the particular item is a particular movie.
33. (ORIGINAL) The machine-implemented method as recited in Claim 7, wherein the plurality of items is a plurality of music items, the one or more items is one or more music items and the particular item is a particular music item.
34. (CURRENTLY AMENDED) A machine-readable medium for estimating how a particular user would rate a particular item, from a plurality of items, that the particular user has not yet rated, the machine-readable medium carrying instructions which, when processed by one or more processors, cause performance of the steps of:  
identifying, from the plurality of items, one or more items that have ratings similar to ratings of the particular item;  
identifying one or more other users that have given ratings to the one or more items that are substantially similar to ratings given by the particular user to the one or more items; and  
generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users.
35. (ORIGINAL) The machine-readable medium as recited in Claim 34, wherein the step of identifying, from the plurality of items, one or more other items that have ratings similar to the particular item is performed off-line in advance of the other steps.
36. (ORIGINAL) The machine-readable medium as recited in Claim 34, wherein identifying one or more items from a plurality of items that have ratings similar to the particular item includes calculating a statistical correlation between the particular item and the other items from the plurality of items.

37. (ORIGINAL) The machine-readable medium as recited in Claim 34, further comprising one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of determining whether the particular item and each of the one or more items have at least a specified number of co-ratings.
38. (ORIGINAL) The machine-readable medium as recited in Claim 34, further comprising one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of determining whether the particular item and one of the one or more items have at least a specified fraction of co-ratings between the particular item and the one of the one or more items divided by the number of ratings of either the particular item or the one of the one or more items.
39. (ORIGINAL) The machine-readable medium as recited in Claim 34, wherein the step of identifying one or more items from the plurality of items that have ratings similar to the particular item includes identifying whether the particular item and the one or more items have a number of co-raters greater than a specified fraction of a statistically expected number, given the number of ratings of each item counted separately.
40. (CANCELED)
41. (ORIGINAL) The machine-readable medium as recited in Claim 34, wherein the step of identifying one or more items from the plurality of items that have ratings similar to the particular item includes consideration of one or more of a statistical correlation between the particular item and the one or more items, whether the particular item and the one or more items have at least a specified number of co-ratings, whether the particular item and the one or more items have at least a specified fraction of co-ratings, and whether the particular item and the one or more items have at least a specified fraction of the statistically expected

number of co-ratings.

42. (ORIGINAL) The machine-readable medium as recited in Claim 34, further comprising one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having at least a minimum number of ratings.
43. (ORIGINAL) The machine-readable medium as recited in Claim 34, further comprising one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having less than a maximum number of ratings.
44. (ORIGINAL) The machine-readable medium as recited in Claim 34, further comprising one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having an average rating within a specified range.
45. (ORIGINAL) The machine-readable medium as recited in Claim 34, further comprising one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having a rating distribution within a specified tolerance of a Normal distribution.
46. (ORIGINAL) The machine-readable medium as recited in Claim 34, further comprising one or more additional instructions which, when processed by the one or more processors,



cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having a rating standard deviation within a specified range.

47. (ORIGINAL) The machine-implemented method as recited in Claim 34, wherein identifying one or more other users that have given ratings to the one or more items that are substantially similar to ratings given by the particular user to the one or more items includes consideration of one or more of whether the one or more other users have at least a specified minimum number of co-ratings, whether the one or more other users have less than a specified maximum number of ratings, whether the one or more other users have an average rating within a specified range, whether the one or more other users have a rating distribution within a specified tolerance of a Normal distribution, and whether the one or more other users have a rating standard deviation within a specified range.
48. (ORIGINAL) The machine-implemented method as recited in Claim 34, wherein identifying the one or more other users includes choosing the one or more other users for whom a statistical correlation with the particular user of co-ratings of the one or more items is greater than a specified threshold.
49. (ORIGINAL) The machine-implemented method as recited in Claim 34, wherein identifying the one or more other users includes choosing the one or more other users for whom a vector cosine distance of co-ratings of the one or more items is smaller than a specified threshold.
50. (ORIGINAL) The machine-implemented method as recited in Claim 34, wherein identifying the one or more other users includes choosing the one or more other users who have co-rated a subset of the one or more items exactly the same as the particular user.

51. (ORIGINAL) The machine-implemented method as recited in Claim 34, wherein identifying the one or more other users includes choosing the one or more other users who have rated co-rated a subset of the one or more items within a specified threshold of the ratings by the particular user.
52. (ORIGINAL) The machine-implemented method as recited in Claim 34, wherein identifying the one or more other users includes consideration of one or more of whether the one or more users have a correlation of co-ratings of the one or more items greater than a specified threshold, whether the one or more users have a vector cosine distance of co-ratings of the one or more items smaller than a specified threshold, whether the one or more users have co-rated a subset of the one or more items exactly the same, and whether the one or more users having co-rated a subset of the one or more items within a specified threshold of the ratings by the particular user.
53. (ORIGINAL) The machine-implemented method as recited in Claim 34, wherein identifying the one or more other users includes choosing a specified number of other users most similar to the particular user.
54. (ORIGINAL) The machine-implemented method as recited in Claim 34, wherein identifying the one or more other users includes choosing other users whose similarity to the particular user is better than a specified threshold.
55. (ORIGINAL) The machine-implemented method as recited in Claim 34, wherein identifying the one or more other users includes choosing up to a specified number of other users most similar to the particular user, where all the chosen other users have similarity better than a specified threshold.

56. (ORIGINAL) The machine-readable medium as recited in Claim 34, wherein generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users includes determining an average rating of the particular item by the one or more other users.
57. (ORIGINAL) The machine-readable medium as recited in Claim 34, wherein generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users includes determining an average rating of the particular item by the one or more other users.
58. (ORIGINAL) The machine-readable medium as recited in Claim 34, further comprising one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional steps of: generating, for each of the one or more users, a separate estimation of how the particular user would rate the particular item based upon the rating for the particular item given by each of the one or more other users, and calculating a confidence metric based upon disparities between the separate estimations.
59. (ORIGINAL) The machine-readable medium as recited in Claim 34, wherein the plurality of items is a plurality of movies, the one or more items is one or more movies and the particular item is a particular movie.
60. (ORIGINAL) The machine-readable medium as recited in Claim 34, wherein the plurality of items is a plurality of music items, the one or more items is one or more music items and the particular item is a particular music item.
61. (CURRENTLY AMENDED) An apparatus for estimating how a particular user would rate a particular item<sub>1</sub> from a plurality of items, that the particular user has not yet rated,

the apparatus comprising a memory storing instructions which, when processed by one or more processors, cause the one or more processors to perform the steps of:  
identifying, from the plurality of items, one or more items that have ratings similar to  
ratings of the particular item;  
identifying one or more other users that have given ratings to the one or more items that  
are substantially similar to ratings given by the particular user to the one or more  
items; and  
generating an estimation of how the particular user would rate the particular item based  
upon ratings for the particular item given by the one or more other users.

62. (ORIGINAL) The apparatus as recited in Claim 61, wherein the step of identifying, from the plurality of items, one or more other items that have ratings similar to the particular item is performed off-line in advance of the other steps.
63. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying one or more items from a plurality of items that have ratings similar to the particular item includes calculating a statistical correlation between the particular item and the other items from the plurality of items.
64. (ORIGINAL) The apparatus as recited in Claim 61, wherein the memory further comprises one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of determining whether the particular item and each of the one or more items have at least a specified number of co-ratings.
65. (ORIGINAL) The apparatus as recited in Claim 61, wherein the memory further comprises one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of determining whether the particular item and one of the one or more items have at least a

specified fraction of co-ratings between the particular item and the one of the one or more items divided by the number of ratings of either the particular item or the one of the one or more items.

- 66. (ORIGINAL) The apparatus as recited in Claim 61, wherein the step of identifying one or more items from the plurality of items that have ratings similar to the particular item includes identifying whether the particular item and the one or more items have a number of co-raters greater than a specified fraction of a statistically expected number, given the number of ratings of each item counted separately.
- 67. (CANCELED)
- 68. (ORIGINAL) The apparatus as recited in Claim 61, wherein the step of identifying one or more items from the plurality of items that have ratings similar to the particular item includes consideration of one or more of a statistical correlation between the particular item and the one or more items, whether the particular item and the one or more items have at least a specified number of co-ratings, whether the particular item and the one or more items have at least a specified fraction of co-ratings, and whether the particular item and the one or more items have at least a specified fraction of the statistically expected number of co-ratings.
- 69. (ORIGINAL) The apparatus as recited in Claim 61, wherein the memory further comprises one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having at least a minimum number of ratings.
- 70. (ORIGINAL) The apparatus as recited in Claim 61, wherein the memory further comprises

one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having less than a maximum number of ratings.

71. (ORIGINAL) The apparatus as recited in Claim 61, wherein the memory further comprises one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having an average rating within a specified range.
72. (ORIGINAL) The apparatus as recited in Claim 61, wherein the memory further comprises one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having a rating distribution within a specified tolerance of a Normal distribution.
73. (ORIGINAL) The apparatus as recited in Claim 61, wherein the memory further comprises one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having a rating standard deviation within a specified range.
74. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying one or more other users that have given ratings to the one or more items that are substantially similar to ratings given by the particular user to the one or more items includes consideration of one or more of whether the one or more other users have at least a specified minimum number of co-ratings, whether the one or more other users have less than a specified maximum number of ratings, whether the one or more other users have an average rating within a specified range,

whether the one or more other users have a rating distribution within a specified tolerance of a Normal distribution, and whether the one or more other users have a rating standard deviation within a specified range.

- 75. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying the one or more other users includes choosing the one or more other users for whom a statistical correlation with the particular user of co-ratings of the one or more items is greater than a specified threshold.
- 76. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying the one or more other users includes choosing the one or more other users for whom a vector cosine distance of co-ratings of the one or more items is smaller than a specified threshold.
- 77. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying the one or more other users includes choosing the one or more other users who have co-rated a subset of the one or more items exactly the same as the particular user.
- 78. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying the one or more other users includes choosing the one or more other users who have co-rated a subset of the one or more items within a specified threshold of the ratings by the particular user.
- 79. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying the one or more other users includes consideration of one or more of whether the one or more users have a correlation of co-ratings of the one or more items greater than a specified threshold, whether the one or more users have a vector cosine distance of co-ratings of the one or more items smaller than a specified threshold, whether the one or more users have co-rated a subset of the one or more items exactly the same, and whether the one or more users having co-rated a subset of the one or more items within a specified threshold of the ratings by the particular

user.

80. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying the one or more other users includes choosing a specified number of other users most similar to the particular user.
81. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying the one or more other users includes choosing other users whose similarity to the particular user is better than a specified threshold.
82. (ORIGINAL) The apparatus as recited in Claim 61, wherein identifying the one or more other users includes choosing up to a specified number of other users most similar to the particular user, where all the chosen other users have similarity better than a specified threshold.
83. (ORIGINAL) The apparatus as recited in Claim 61, wherein generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users includes determining an average rating of the particular item by the one or more other users.
84. (ORIGINAL) The apparatus as recited in Claim 61, wherein generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users includes determining an average rating of the particular item by the one or more other users.
85. (ORIGINAL) The apparatus as recited in Claim 61, wherein the memory further comprises one or more additional instructions which, when processed by the one or more processors, cause the one or more processors to perform the additional steps of:



generating, for each of the one or more users, a separate estimation of how the particular user would rate the particular item based upon the rating for the particular item given by each of the one or more other users, and  
calculating a confidence metric based upon disparities between the separate estimations.

86. (ORIGINAL) The apparatus as recited in Claim 61, wherein the plurality of items is a plurality of movies, the one or more items is one or more movies and the particular item is a particular movie.

87. (ORIGINAL) The apparatus as recited in Claim 61, wherein the plurality of items is a plurality of music items, the one or more items is one or more music items and the particular item is a particular music item.

88-109. (CANCELED)

110. (NEW) The machine-implemented method of Claim 7, wherein:  
generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users includes determining a similarity between the ratings given by the one or more other users to the one or more items and the ratings given by the particular user to the one or more items.

111. (NEW) The machine-readable medium of Claim 34, wherein:  
the instructions for generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users includes instructions for determining a similarity between the ratings given by the one or more other users to the one or more items and the ratings given by the particular user to the one or more items.

112. (NEW) The apparatus of Claim 61, wherein:
- the instructions for generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users includes instructions for determining a similarity between the ratings given by the one or more other users to the one or more items and the ratings given by the particular user to the one or more items.